

## Pulmonary Sarcoidosis: Who to Treat?

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In Ireland, sarcoidosis is one of the most common causes of pulmonary fibrosis in adults less than 65 years of age with a disease prevalence of up to 85 cases per 100,000 individuals [1].

A 32 year old computer programmer, non-smoker, has been complaining of worsening shortness of breath over the last 6 months with intermittent dry cough and right side chest pain. He has no wheeze, no arthralgia, no night sweat, and no weight loss. He has no past medical history, is on no medication and has no significant family history.

On examination, his vitals were normal. There was no clubbing, no cervical lymphadenopathy but fine inspiratory crackles on auscultation of the chest. He had no peripheral edema.

His ECG showed normal sinus rhythm and CXR showed a diffuse reticular/micronodular shadowing most prominent in the mid and upper zones with relative sparing of the bases (Figure 1). His FBC, U&E, LFT, ACE and calcium were all normal. His CRP was mildly elevated at 34. PFT showed a restrictive pattern with mildly reduced transfer factor.

Subsequently CT thorax done showed extensive micronodules in the lungs bilaterally, predominantly in the mid and upper zones, many which display a perilymphatic distribution with with irregular pleural/fissural thickening. There is also extensive interstitial thickening as well as foci of scarring in the upper lobes bilaterally (Figure 2). Transbronchial biopsies done confirmed the presence of non caseating granulomas. He was started on prednisolone 40 mg once daily and will be reviewed in six weeks with repeat pulmonary function tests and CXR.

Most patients with pulmonary sarcoidosis do not require treatment, as a high proportion have asymptomatic, nonprogressive disease or experience a spontaneous remission.

Careful monitoring of symptoms, chest radiograph, and pulmonary function is continued at three to six month intervals.

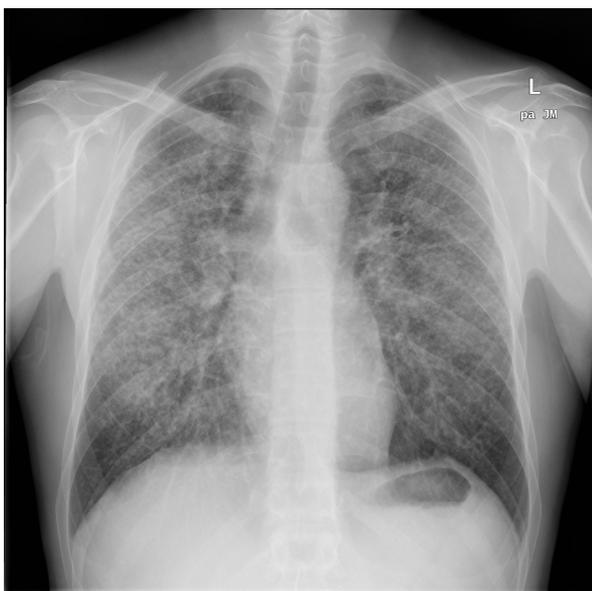


Figure 1: ECG showing normal sinus rhythm and CXR.



Figure 2: CT of thorax showing extensive micronodules in the lungs bilaterally in the mid and upper zones.

For patients with pulmonary sarcoidosis causing symptoms, worsening radiographic opacities, and increasing pulmonary function impairment, initiation of oral glucocorticoids rather than continued observation is recommended. The usual dose of oral glucocorticoids is the equivalent of prednisolone 0.3-0.6 mg/kg ideal body weight (usually 20-40 mg/day). The initial dose of prednisolone is continued for four to six weeks. If the symptoms, radiographic abnormalities, and pulmonary function tests are unimproved, the initial dose is continued for another four to six weeks. If these parameters are stable or improved, the dose of prednisolone is tapered gradually.

For patients who are unable to tolerate the adverse effects of glucocorticoids, whose disease cannot be controlled on the equivalent of prednisolone 10-15 mg or less, or who have evidence of disease progression despite a moderate dose of prednisolone, an alternative immunosuppressive agent may be of benefit [2].

### References

1. Donnelly SC, Walters M (2013) Reply to: Increased prevalence of sarcoidosis in Ireland. *Ir J Med Sci* 182: 149.
2. King TE (2016) Treatment of pulmonary sarcoidosis with glucocorticoids.

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